Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for treating a natural gas containing H_2S, wherein the following stages are carried out:

a) contacting said natural gas with a first solvent comprising between 20% and 95% by weight of amine so as to obtain an H_2S-depleted gas and an H_2S-laden solvent,

b) dehydrating the H_2S-depleted gas by contacting the H_2S-depleted gas obtained in stage a) with a second solvent comprising at least 90 % by weight of amine so as to obtain a water-depleted gas and a water-laden solvent.

2. (previously presented) A method as claimed in claim 1 wherein, in stage b), the second solvent comprises at least 95 % by weight of amine.

3. (previously presented) A method as claimed in claim 1, wherein the H_2S-laden solvent obtained in stage a) and the water-laden solvent obtained in stage b) are regenerated by a single regeneration circuit.

4. (previously presented) A method as claimed in claim 1 wherein, in stage a), said natural gas is contacted with the first solvent comprising amine and water and with the water-laden solvent obtained in stage b), and wherein the following stage is carried out:

c) distilling the H_2S-laden solvent obtained in stage a) so as to obtain a first H_2S-laden steam and a regenerated solvent, a first part of said regenerated solvent being recycled to stage a) as first solvent.

5. (previously presented) A method as claimed in claim 4, wherein the following stage is carried out:

d) distilling, in the presence of hydrocarbons comprising more than five carbon atoms, a second part of the regenerated solvent obtained in stage c) so as to obtain a second steam and said second solvent, comprising at least 90 % amine, used in stage b).

6. (previously presented) A method as claimed in claim 4, wherein the following stage is carried out:

d) distilling, at a pressure below the atmospheric pressure, a second part of the regenerated solvent obtained in stage c) so as to obtain a second steam and said second solvent, comprising at least 90 % amine, used in stage b).

7. (previously presented) A method as claimed in claim 1, wherein the following stages are carried out:

c) distilling the H_2S-laden solvent obtained in stage a) and the water-laden solvent obtained in stage b) so as to obtain a first H_2S-laden steam and a regenerated solvent, a first part of said regenerated solvent being recycled to stage a) as first solvent,

d) distilling, at a pressure below the atmopsheric pressure, a second part of the regenerated solvent obtained in stage c) so as to obtain a second steam and said second solvent, comprising at least 90 % amine, used in stage b).

8. (previously presented) A method as claimed in claim 4 wherein, in stage b), said second part forms between 1 % and 50 % by weight of said regenerated solvent obtained in stage c).

9. (previously presented) A method as claimed in claim 4 wherein, before stage c), said H_2S-laden solvent obtained in stage a) is expanded in order to release H_2S.

10. (previously presented) A method as claimed in claim 6 wherein, in stage c), distillation is carried out in a first distillation column and, in stage d), distillation is carried out in a second distillation column, and wherein the following stages are carried out:

e) cooling the second steam obtained in stage d) so as to obtain a liquid aqueous phase and a third H_2S-laden steam,

f) feeding a first part of said aqueous phase obtained in stage e) to the top of the first column and feeding a second part of said liquid obtained in stage e) to the top of the second column.

11. (previously presented) A method as claimed in claim 7 wherein, in stage c), distillation is carried out in a first distillation column and, in stage d), distillation is carried out in a second distillation column, and wherein the following stages are carried out:

e) cooling the second steam obtained in stage d) so as to obtain a liquid aqueous phase and a third H_2S-laden steam,

f) feeding a first part of said aqueous phase obtained in stage e) to the top of the first column and feeding a second part of said liquid obtained in stage e) to the top of the second column.

12. (previously presented) A method as claimed in claim 5 wherein, in stage c), distillation is carried out in a first distillation column and, in stage d), distillation is carried out in a second distillation column, and wherein the following stages are carried out:

e) cooling the second steam obtained in stage d) so as to obtain a liquid aqueous phase, liquid hydrocarbons and a third H_2S-laden steam,

f) feeding part of said aqueous phase obtained in stage e) to the top of the second column and feeding part of said hydrocarbons obtained in stage e) to the bottom of the second column.

13. (previously presented) A method as claimed in claim 10, wherein the following stage is carried out:

g) drawing the third steam obtained in stage e) by means of a steam ejector so as to obtain a stream containing water and H_2S, said stream being fed into the first column.

14. (previously presented) A method as claimed in claim 10, wherein the following stages are carried out:

h) cooling the first steam obtained in stage c) so as to obtain a second water-containing liquid and a fourth H_2S-laden steam,

i) feeding part of the second liquid obtained in stage h) to the top of the first column.

15. (previously presented) A method as claimed in claim 10, wherein the following stage is carried out:

j) drawing the third steam obtained in stage e) by means of a vacuum pump.

16. (previously presented) A method as claimed in claim 1, wherein the amine is selected from the group consisting of methyldiethanolamine and dimethylethanolamine.

17. (new) A method as claimed in claim 1, wherein the second solvent is different from the first solvent.

18. (new) A method as claimed in claim 12, wherein the second solvent has a higher amine concentration than the first solvent.

19. (new) A method as claimed in claim 18, wherein, in stage b) the second solvent comprises at least 98% by weight of amine.

20. (new) A method as claimed in claim 18 wherein, in stage b), the second solvent comprises at least 95 % by weight of amine.